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What is HPV? For many of you, that’s an easy question to answer. HPV (Human Papilloma Virus) is a prevalent [sexually transmitted disease/infection](https://www.cdc.gov/std/hpv/stdfact-hpv.htm) (STD/STI) in the United States, with an estimated 43 million active HPV cases reported in 2018. HPV is so common among the sexually active population that nearly [84.6% of females and 91.3% of males](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6745688/) in the United States will be (or have already been) exposed to it throughout their lifespan.

While general knowledge of HPV is widespread, many fail to make the connection between HPV and cancer. With continued research and public health awareness, we now know that certain strains of HPV have been directly linked to cervical cancer and some types of head and neck cancers.

[Nearly all cervical cancers](https://www.cancer.gov/about-cancer/causes-prevention/risk/infectious-agents/hpv-and-cancer) are linked to HPV. In 2023, the [National Cancer Institute (NCI) estimates](https://www.cancer.org/cancer/cervical-cancer/about/key-statistics.html) that there will be almost 14,000 new cases of cervical cancer diagnosed in the United States. Of those diagnosed cases, an [estimated 4,310](https://www.cancer.org/cancer/cervical-cancer/about/key-statistics.html) will die of cervical cancer this year. While cases continue to decline, cervical cancer remains the [fourth most prominent](https://www.who.int/health-topics/cervical-cancer#tab=tab_1) cancer affecting females.

As cervical cancer cases continue declining, head and neck cancers rise. Every year, approximately [900,000 new cases of head and neck cancers](https://my.clevelandclinic.org/health/diseases/14458-head-and-neck-cancer) are diagnosed worldwide. Head and neck cancers can affect any part of the head and neck region, making initial diagnosis and treatment difficult. It is estimated that HPV causes [75 percent](https://my.clevelandclinic.org/health/diseases/14458-head-and-neck-cancer) of head and neck cancers.

Of those diagnosed with a type of head and neck cancer, a large majority are men.

Scientists and public health officials recognize the prevalence of HPV as a significant public health problem. They have concentrated on studying HPV and raising awareness of its role in developing cervical and head and neck cancer. Cervical cancer screening, HPV testing, HPV vaccine development, and HPV awareness initiatives are all essential tools created and implemented to help decrease the spread of HPV and protect men and women from contracting the virus.

**HPV Explained**

Viruses change and evolve, creating new strains that have similar characteristics of a virus but have slightly different molecular makeup. There are over [200 viruses](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6517478/) that are part of the HPV family.

HPV strains have been, and continue to be, studied to determine if they are harmful or harmless. Of those 200 HPV strains, only [40 affect the genital areas](https://www.cdc.gov/cancer/hpv/basic_info/index.htm) of men and women. The body can clear most of these strains, but some can lead to genital warts and cancer. HPV is categorized into two different classes or groups: Low-Risk and High-Risk.

*Low-Risk HPV Infections*

A majority of infections will fall into the [Low-Risk](https://www.cancer.gov/about-cancer/causes-prevention/risk/infectious-agents/hpv-and-cancer) grouping of HPV viruses. Most Low-Risk HPV infections will cause warts, but there is little likelihood that HPV strains in the Low-risk category will become pre-cancerous or cancerous. As long as our immune system is strong and healthy, our body can fight these low-risk infections and effectively clear them from the body.

Low-Risk HPV infections can lead to warts in the [mouth, throat, genital area, or anus](https://www.cancer.gov/about-cancer/causes-prevention/risk/infectious-agents/hpv-and-cancer). These will need to be seen and treated by your healthcare provider. You will need to discuss with your provider if further screening is required.

*High-Risk HPV Infections*

[High-Risk HPV](https://www.cancer.gov/about-cancer/causes-prevention/risk/infectious-agents/hpv-and-cancer) infections are those viral strains directly associated with certain types of cancers. The 14 HPV strains related to cancer are HPV 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68. HPV-16 and HVP-18 are the strains associated with cervical cancer. [HPV-16](https://www.cancer.gov/news-events/cancer-currents-blog/2016/hpv-head-and-neck-cancer#:~:text=Infection%20in%20the%20oral%20cavity,neck%20cancer%2C%20particularly%20oropharyngeal%20cancers.) has also been linked to several forms of head and neck cancer.

**How HPV Spreads**

HPV spreads through [sexual intercourse](https://www.cdc.gov/std/hpv/stdfact-hpv.htm) or close skin-to-skin contact with mucus membranes (like the vagina and anus). HPV can also be contracted from performing oral sex.

Many people may have warts on their arms, feet, or other common areas. While these warts are a type of HPV strain, they are not considered sexually transmitted.

**How To Decrease Your Chances of Getting HPV**

*Abstinence*

The only way to completely prevent exposure and contraction of the virus is to abstain from sex. However, that choice may be difficult for many to make. The [CDC reports](https://www.cdc.gov/nchs/nsfg/key_statistics/p.htm) that 88.8% of females and 89.9% of males between the ages of 15-44 years old who have ever been married or are currently married engaged in sex before marriage.

*Limiting Sexual Partners*

Having [more sexual partners](https://www.cdc.gov/std/hpv/stdfact-hpv.htm) increases your chances of contracting HPV. You may recall from sex-ed that you are sleeping with all the partners your partner has slept with when you choose to have sex. For this reason, intercourse outside of a monogamous relationship can be risky. Therefore, having one sexual partner may help reduce the possibility of contracting HPV.

*Condoms*

Condoms are an excellent option for reducing the risk of contracting HPV and other STDs/STIs. [Using condoms correctly](https://www.cdc.gov/condomeffectiveness/external-condom-use.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcondomeffectiveness%2Fmale-condom-use.html) can [reduce your risk](https://www.cdc.gov/condomeffectiveness/latex.html) of getting HPV.

Condoms should be used following packaging instructions. After sex, but before withdrawing, hold the condom in place to keep the condom from unrolling. Condoms that come off during oral or anal sex do not protect against HPV and other STDs. "Lost" condoms in the vagina or anus may also pose a unique medical risk if medical treatment is required to retrieve the condom.

Condoms are also sensitive to heat and friction—store condoms in cool areas to protect them from heat damage.

Always check the expiration date! Condoms are less effective past their expiration date and should not be used as a reliable form of birth control or STI prevention after they have expired.

*Regular Screenings*

Cervical cell changes can lead to pre-cancerous and cancerous changes in the cells. Regular screenings are essential to detect cell changes early. Monitoring and treatment can start sooner if caught early, decreasing the chances of developing cervical cancer.

According to the [American College of Obstetrics and Gynecologists (ACOG](https://www.acog.org/clinical/clinical-guidance/practice-advisory/articles/2021/04/updated-cervical-cancer-screening-guidelines)), women are recommended to get regular check-ups based on their age.

* Women between the [ages of 21 and 29](https://www.cdc.gov/vaccines/pubs/pinkbook/hpv.html#prevention) should receive a pap smear every three years.
* Women between the [ages of 30 and 65](https://www.cdc.gov/vaccines/pubs/pinkbook/hpv.html#prevention) have three different screening options.
  + HPV Testing: HPV testing is recommended every five years for this age group and tests only for cell changes caused by the HPV virus.
  + Pap smear: A pap smear screens for any signs of cell changes that could indicate pre-cancerous cells. Women ages 30 to 65 should receive a pap smear every three years.
  + Co-testing: Co-testing combines both the pap smear and HPV test. Co-testing should be completed every five years for women in the 30 to 65 age group.

Cervical cancer screenings have become the gold standard for detecting and treating cervical cancer in women. Regular screenings allow for early detection, which is why cervical cancer incidences have steadily declined over the past several years.

In stark contrast to the decline of cervical cancer cases in the US, head and neck cancers have been increasing. Men are at the most significant risk for developing head and neck cancers. To date, no specific screening tools for men allow for early detection of head and neck or penile cancers. Many head and neck cancers aren’t detected until after age 50, several years after exposure to HPV. Until new screening tools have been developed, the best way to protect against HPV is by getting the vaccine.

*HPV Vaccine*

Vaccinations are perhaps the most reliable option for preventing HPV strains that cause head and neck, cervical, and other cancers. As long as the individual is [vaccinated before engaging in sex](https://www.immunize.org/askexperts/experts_hpv.asp), the strains causing cancer can be effectively prevented. Vaccinations are not as effective in individuals who are sexually active before receiving the vaccine. This is why it is so important for young men and women to be vaccinated early.

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